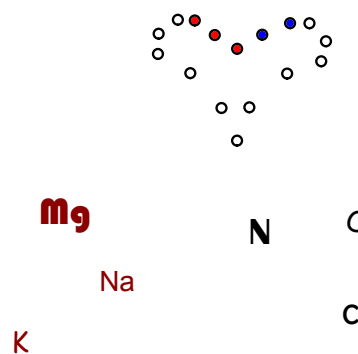


Recap...

Periodic table

**Lewis Dot Diagrams** - diagrams which show the valence electrons in an atom & how the electrons in an atom bond with other atoms to form a molecule

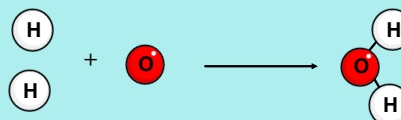


Sep 19-22:27

**Construct your own Lewis dot diagram**  
Choose one element and drag it to the empty square and place the correct number of valence electrons around it.

Jun 7 - 8:57 PM

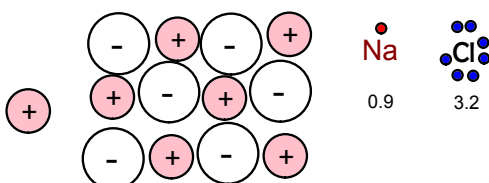
### Types of Chemical Bonds



Jun 8 - 8:10 AM

### Ionic Bonding

- Involves bonding between a \_\_\_\_\_ and a \_\_\_\_\_
- Formed when the EN difference between atoms is greater than 1.7
- Electrons transferred producing ions which have opposite charge and attract
- Ionic bonds are weak
- Ionic compounds are brittle (they can be crushed into powder)
- Ionic bonds conduct electricity



Sep 24-8:13 PM

### Another example of a Lewis Structure for an ionic compound



Practice:

Sep 24-8:14 PM

**Reviewing metals and non-metals**

Classify each element as a metal or a non-metal by dragging each element to the correct category.

**Metal** **Non-metal**

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**Covalent Bonding**

- Involves bonding between a \_\_\_\_\_ and a \_\_\_\_\_
- Formed when the EN difference between atoms is less than 1.7
- Can be broken into polar covalent & non-polar covalent bonding
- Electron(s) are shared between atoms
- Covalent bonds are strong as atoms become part of each other
- Covalent bonds do not conduct electricity

Look for the number of unpaired e-

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**Examples of Lewis Structure for Covalent Molecule**

N H

O O

Sep 24-8:46 PM

**Non-Polar Covalent** **Polar Covalent**

F F H Cl

Sep 24-10:01 PM

**Practice forming covalent bonds**

- Choose any two elements that will form a covalent bond
- Drag each element above the line
- Place them in the order they would appear in a chemical formula
- Ungroup each element to move the symbol and electrons
- Return elements to the original configuration and regroup

Jun 7 - 8:41 PM

**Reviewing types of chemical bonds**  
(Move each statement under the correct category.)

**IONIC BONDS** **COVALENT BONDS**

Two non-metals combine

Electrons are shared

Each element has a charge  
Opposite charges attract

A metal and a non-metal combine

Electrons are transferred

Jun 8 - 1:53 PM

**Mahjong Anyone...?**

Volunteers are needed for a quick  
game of Chemistry Mahjong



Sep 24-8:41 PM